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NOTICE OF ALLOWANCE AND FEE(S) DUE

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314

EXAMINER

COLEMAN, RYAN L

ART UNIT PAPER NUMBER

1714

DATE MAILED: 09/14/2011

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/586,967 | 09/25/2006 | Nicolas Nadaud | 293259US0PCT | 6539 |

TITLE OF INVENTION: METHOD FOR CLEANING A SUBSTRATE

| APPLN. TYPE | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | NO | \$1510 | \$300 | \$0 | \$1810 | 12/14/2011 |

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

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III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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| | | | | | | (Depositor's name) | |
| | | | | | | (Signature) | |
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| COLEMAN | N, RYAN L | 1714 | 134-001100 | • | | | |
| CFR 1.363). | ence address or indicatio | | 2. For printing on the pa (1) the names of up to or agents OR, alternativ | 3 registered patent | | | |
| ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. | | " Indication form | registered attorney or a 2 registered patent attor | he name of a single firm (having as a member a stered attorney or agent) and the names of up to gistered patent attorneys or agents. If no name is d, no name will be printed. | | | |
| . ASSIGNEE NAME A | ND RESIDENCE DATA | A TO BE PRINTED ON T | - ΓΗΕ PATENT (print or typ | oe) | | | |
| PLEASE NOTE: Unl recordation as set forth (A) NAME OF ASSIG | | ified below, no assignee pletion of this form is NO | data will appear on the pa T a substitute for filing an a (B) RESIDENCE: (CITY | | | ocument has been filed for | |
| lease check the appropr | iate assignee category or | categories (will not be pr | rinted on the patent): | Individual | poration or other private gr | oup entity Government | |
| a. The following fee(s) are submitted: Issue Fee Publication Fee (No small entity discount permitted) Advance Order - # of Copies | | | #b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form). | | | | |
| | tus (from status indicate s SMALL ENTITY state | · · · · · · · · · · · · · · · · · · · | ☐ b. Applicant is no long | ger claiming SMALI | ENTITY status. See 37 C | FR 1.27(g)(2). | |
| NOTE: The Issue Fee and terest as shown by the I | d Publication Fee (if req records of the United Sta | uired) will not be accepted tes Patent and Trademark | d from anyone other than the Office. | ne applicant; a regist | ered attorney or agent; or the | ne assignee or other party in | |
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| his collection of inform n application. Confident ubmitting the completed his form and/or suggesti | ation is required by 37 C tiality is governed by 35 I application form to the ons for reducing this bu | CFR 1.311. The information U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the | on is required to obtain or re 1.14. This collection is esti- depending upon the indiv- e Chief Information Office | etain a benefit by the imated to take 12 mi idual case. Any com r, U.S. Patent and T | public which is to file (an inutes to complete, including iments on the amount of ti- rademark Office, U.S. Dep | d by the USPTO to process) ag gathering, preparing, and me you require to complete artment of Commerce, P.O. | |

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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| | | | COLEMAN, RYAN L | | |
| 1940 DUKE STRE ALEXANDRIA, V | _ - | | ART UNIT | PAPER NUMBER | |
| , | | | 1714 | | |

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 642 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 642 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

| | Application No. | Applicant(s) | |
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| Notice of Allowability | 10/586,967 Examiner | NADAUD ET AL. Art Unit | |
| | DVAN OOL EMAN | 1744 | |
| | RYAN COLEMAN | 1714 | |
| The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT F of the Office or upon petition by the applicant. See 37 CFR 1.31 | S (OR REMAINS) CLOSED in S) or other appropriate comm RIGHTS. This application is s | n this application. If not included unication will be mailed in due course. | |
| 1. \blacksquare This communication is responsive to <u>applicant's claim ame</u> | endments filed June 1, 2011. | | |
| 2. An election was made by the applicant in response to a rerequirement and election have been incorporated into this | | during the interview on; the rest | triction |
| 3. ☑ The allowed claim(s) is/are <u>1, 3-8, 10, and 21-23</u> . | | | |
| 4. Acknowledgment is made of a claim for foreign priority und a) All b) Some* c) None of the: | | (f). | |
| 1. 🛛 Certified copies of the priority documents hav | | | |
| 2. Certified copies of the priority documents have | | | |
| 3. Copies of the certified copies of the priority de | ocuments have been receive | d in this national stage application from | the |
| International Bureau (PCT Rule 17.2(a)). | | | |
| * Certified copies not received: | | | |
| Applicant has THREE MONTHS FROM THE "MAILING DATE noted below. Failure to timely comply will result in ABANDON THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. | | a reply complying with the requiremen | its |
| 5. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give | | | F |
| 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") mu | st be submitted. | | |
| (a) I including changes required by the Notice of Draftspel | rson's Patent Drawing Review | v (PTO-948) attached | |
| 1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date | <u>.</u> | | |
| (b) ☐ including changes required by the attached Examine Paper No./Mail Date | r's Amendment / Comment o | in the Office action of | |
| Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in | | | |
| DEPOSIT OF and/or INFORMATION about the deposit of attached Examiner's comment regarding REQUIREMENT F | | | |
| Attachment(s) | | | |
| 1. Notice of References Cited (PTO-892) | <u> </u> | formal Patent Application | |
| 2. Notice of Draftperson's Patent Drawing Review (PTO-948) | | ummary (PTO-413), /Mail Date | |
| 3. ☑ Information Disclosure Statements (PTO/SB/08), | | Amendment/Comment | |
| Paper No./Mail Date <u>See Continuation Sheet</u> 4. ☐ Examiner's Comment Regarding Requirement for Deposit | 8 M Evaminar's | Statement of Reasons for Allowance | |
| of Biological Material | 9. ☐ Other | Statement of Heasons for Allowallee | |
| RLC/ | 9. Other | -· | |
| Ryan L. Coleman | | tent Examiner, Art Unit 1714 | |
| Patent Examiner, Art Unit 1714 August 31, 2011 | Caporvisory | tone Examinor, fact office (7) 17 | |

U.S. Patent and Trademark Office PTOL-37 (Rev. 03-11)

Art Unit: 1714

Examiner's Amendment and Reasons for Allowance

1. Applicant's amendments filed June 1, 2011 are acknowledged. Claims 2, 11-19, and 24-29 have been cancelled. Claims 1, 3-10, and 20-23 are pending.

Information Disclosure Statement

2. All of the references listed on the IDS filed 8/11/2011 have been marked as not considered by the examiner because each of those references was previously listed on an IDS filed 5/11/2011. Each of those references was marked as considered by the examiner on the IDS filed 5/11/2011.

EXAMINER'S AMENDMENT

- 3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- 4. Authorization for this examiner's amendment was given in a telephone interview with Daniel Pereira on August 31, 2011.
- 5. The application has been amended as follows:
- 6. Amend claim 1 as follows: A method for cleaning and coating a glass substrate, the method comprising:

Art Unit: 1714

generating a plasma from a gas mixture comprising predominantly oxygen with at least one linear ion source, wherein the linear ion source generates a collimated beam of ions;

[[-]] subjecting at least one surface portion of a glass substrate optionally associated with a layer to said plasma to at least partly eliminate, by chemical reaction, the soiling matter possibly adsorbed or located on said surface portion—without removing material from the surface portion of the glass substrate; and

coating said at least one surface portion of the glass substrate subjected to the plasma by depositing at least one thin multilayer without breaking vacuum, wherein said at least one thin film multilayer is for provides at least one of solar control, [[a]] low emissivity, electromagnetic shielding, heating functionality, hydrophobic properties, hydrophilic properties, photocatalytic properties, mirror properties, antireflection properties, electrochromic properties, electroluminescent properties, and photovoltaic properties.

7. Cancel claims 9 and 20.

Reasons for Allowance

8. The following is an examiner's statement of reasons for allowance: the reviewed prior art does not teach or suggest the subject matter recited by claim 1, the independent claim. The most relevant prior art to claim 1 is the combination of U.S. 2004/0020761 by Thomsen (Thomsen '761) in view of U.S. 2003/0064198 by Thomsen (Thomsen '198) in view of U.S. 2002/0012798 by Veerasamy that was used to reject

Art Unit: 1714

claim 1 in the examiner's Non-Final Rejection dated 2/10/2011. The combination of Thomsen '761 in view of Thomsen '198 in view of Veerasamy fails to teach subjecting a glass substrate to plasma generated from a gas mixture comprising predominantly oxygen and then coating the glass substrate with a multilayer. The reviewed prior art fails to provide motivation to modify the combination of Thomsen '761 in view of Thomsen '198 in view of Veerasamy in order to arrive at the invention recited by claim 1.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

- 10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN COLEMAN whose telephone number is (571)270-7376. The examiner can normally be reached on Monday-Friday, 9-5.
- 11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on (571)272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 1714

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RLC/ Ryan L. Coleman Patent Examiner, Art Unit 1714 August 31, 2011 /Michael Kornakov/ Supervisory Patent Examiner, Art Unit 1714